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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/913,803	09/22/97	BOCCON-GIBOD G	RCA-87865

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
08/913,803	Boccon-Gibod et al
Examiner	**Group Art Unit**
Christopher Onuaku	2615

☒ Responsive to communication(s) filed on *Dec 14, 2000*

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *3* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) *1-10, 12-14, 16, and 17* is/are pending in the applicat

Of the above, claim(s) _____ is/are withdrawn from consideration

☒ Claim(s) *12-14* is/are allowed.

☒ Claim(s) *1-10, 16, and 17* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-10&16-17 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 U.S.C. § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-4&6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lane et al (US 5,933,567) in view of Park et al (US 5,546,244).

Regarding claim 1, Lane et al disclose in Fig. 17,18& 19 digital video recorder capable of recording and/or reproducing recorded video images stored in the form of compressed digital data for use during fast forward, search and reverse modes of video recorder playback operation comprising the method steps of:

a) selecting one of plurality of "video programs" for reproduction (see col.53, line 40 to col.54, line 14);

b) selecting a reproduction speed for the one of the plurality of "video programs" (see col.53, line 40 to col.54, line 14);

c) selecting a digitally encoded signal from a set of signals corresponding to the one of the plurality of "video programs" responsive to the reproduction speed (see col.53, line 40 to col.54, line 14);

d) reproducing the digitally encoded signal from the set of signals (see col.55, line 54 to col.59, line 33);

e) "jumping" to different ones of the encoded signals for the reproduction in accordance with the predetermined "jump points" in response to subsequent selections of different "reproduction speed" (see col.56, lines 7-20);

f) decoding the reproduced signals for display of the selected program at the selected reproduction speeds (see col.37, line 28 to col.38, line 6);

Lane fails to explicitly disclose wherein step c above further comprises selecting digitally encoded signal from the set of digitally encoded signals corresponding to different speeds of reproduction with differing resolution values. In the same field of endeavor, Park et al teach a method for recording/reproducing video data for trick play in a digital video tape recording/reproducing apparatus which records/reproduces an advanced television signal wherein in Fig.3 the division of the coefficients of each DCT block of trick play frame data is shown. In Fig.3 the first data area AC coefficients 32 are shown as 1, 2 and 4, the second data area AC coefficients 33 are shown as 3, 5, 7, 8 and 12, and the third data area AC coefficients 34 are

shown as 6, 9, 11, 13, 17, 18 and 24. At the 3-fold speed the first, second and third data are all used for each DCT block data so that more AC coefficients can be used than in the high speeds and the high frequency component of an image is improved which enhances picture quality. At the 7-fold, since the first and second data are used, picture quality is held intermediate between that for the high speeds and the 3-fold speed (see col.4, lines 18-38). Here Park teaches that at 3-fold speed, the resolution is higher and, consequently, the picture quality better when compared to the lower resolution at 7-fold speed. Producing encoded signals with different resolutions at different speeds provides the desirable advantage of giving an operator the ability to choose differing resolutions at differing speeds, based on the operator signal (image) quality requirements. It would have been obvious to modify Lane by realizing Lane with the means, during trick play, to produce images with different resolutions at different speeds, as taught by Park, since this provides the desirable advantage of giving an operator the ability to choose differing resolutions at differing speeds, based on the operator signal (image) quality requirements.

Regarding claim 2, Lane discloses the step of arranging the "jump" points in a nested "pattern"(see Fig.13b; col.41, lines 36-53).

Regarding claims 3&4, Lane discloses the step of selecting one signal of the digitally encoded set of signals for reproduction at a normal speed and other than normal speed (see col.53, line 40 to col.54, line 14).

Regarding claim 6, Lane discloses the step of assembling the "jump points" as look up tables (see col.55, line 59 to col.57, line 67).

Regarding claim 7, Lane discloses the step of arranging the look up tables in groups where each one of the groups of the look up tables is specific to a reproduction speed (see col.55, line 59 to col 57, line 67).

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lane et al in view of Park et al and further in view of Boyce et al (US 6,023,553).

Regarding claim 5, Lane to explicitly disclose the step wherein the step c further comprises selecting other ones of the set for reproduction with a bit rate less than a bit rate of the one signal for reproduction at the normal play speed .Boyce et al teach a method and apparatus for extracting intra-coded video frames from a video bitstream and processing the selected intra-coded video frames to generate intra-coded video frames suitable for use during video tape recorder trick play operation comprises wherein one of the easiest approaches to extracting from a normal play, e.g., full rate bitstream to produce a reduced rate bitstream suitable for recording in trick play tape segments to provide sufficient data for the generation of recognizable images or portions of images during VTR trick play playback operation, is to use data prioritizing (see col.11, lines 55-60). Producing normal play rate bitstream and reduced rate bitstream suitable for recording in trick play segments provides the desirable advantage of choosing for reproduction

from both trick play and normal play bitstreams It would have obvious to further modify Lane by realizing Lane with the means to produce reduced rate bitstream suitable for recording in trick play tape segments, as taught by Boyce, in order, for example, for Lane to choosing for reproduction from both trick play and normal play bitstreams. Once reduced rate bitstream suitable for recording in trick play segments has been produced, it would have been obvious to select from the normal play rate and the reduced bit rate trick play in order, for example, to satisfy reproduction requirements.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

6. Claims 8-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Lane et al (US 5,933,567).

Regarding claim 8, Lane et al disclose in Fig. 17,18& 19 digital video recorder capable of recording and/or reproducing recorded video images stored in the form of compressed digital data for use during fast forward, search and reverse modes of video recorder playback operation comprising

a) means for storing a plurality of program records wherein each program record having a set of digitally encoded signal records representative of each program (see col.21, line 34 to col.22, line 61);

b) means for linking the encoded signal records of each said set to one another at predetermined jump points for selecting reproduction from different ones of said set (see col.21, line 52 to col.22, line 5); and

c) wherein each said set of digitally encoded signal records has records of differing sizes for reproducing at a plurality of speeds (see col.56, line 62 to col.58, line 50).

Regarding claim 9, Lane discloses wherein the predetermined jump points are grouped specific to transitions between similar temporal program events for reproduction at differing speeds (see col.57, lines 35-48).

Regarding claim 10, Lane discloses wherein the predetermined jump points represent addresses of digital images within each said set which substantially correspond with one another (see col.57, lines 35-48).

7. Claims 16-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Abecassis (US 6,091,886).

Regarding claim 16, Abecassis teaches a video device for the automated selective retrieval of non-sequentially-stored video segments of a video program, from a single video program source, responsive to a viewer's preestablished video content preferences, and the transmission of the selected segments as a seamless video program comprising:

a) the claimed storage device (see Fig.5; program source 501 and mass memory fixed storage device 503; col.13, line 60 to col.14, line 12; also see Fig. 2A-2C, 3A-3C &4C; col.14, lines 13-23 and col.23, line 54 to col.24, line 54; which show different tables; and col.9, lines 35-50 and col.24, line 55 to col.25, line 8 which disclose processing different versions of the same program); here the claimed addresses within each version of each program are included in the code description for assigning appropriate segment content descriptors in Abecassis so that during the editing of the programs, frames containing different content descriptors can be added or dropped, as the viewer chooses;

b) transducing means (see Fig.6; reading units 621-623; col.15, line 1 to col.16, line 10; also see col.20, lines 39-47);

c) the claimed control means (see col.13, line 14 to col.14, line 23; here Abecassis discloses the process of editing out unwanted portions of a variable content program as requested by a viewer wherein frames are omitted and added to provide a continuous transparent edited version of any segment, thereby varying the final reproduction speed which varies on the basis of the extent of the editing of the original program.

Regarding claim 17, the claimed limitation wherein images are reproduced from a time which precedes the preceding version is inherent in Abecassis since Abecassis has random access capability (see col.14, lines 24-44)..

Allowable Subject Matter

8. Claim 12-14 are allowable over the prior art of record.

9. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 12, the prior art of record fails to show or fairly suggest an apparatus for reproducing video programs where the apparatus comprises wherein the linking means comprises N sets of tables, each set comprises (N- 1) tables of the predetermined jump points for each of N reproduction speeds.

Conclusion

10. Any inquiry concerning this communication or earlier communications from this examiner should be directed to Christopher Onuaku whose telephone number is (703) 308-7555. The examiner can normally be reached on Tuesday to Thursday from 7:30 am to 5:00 pm. The examiner can also be reached on alternate Monday.

If attempts to reach the examiner by telephone is unsuccessful, the examiner's supervisor, Wendy Garber, can be reached on (703) 305-4929.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-6306 and (703) 308-6296, (for formal communications intended for entry)

Or:

(703) 308-6306 and (703) 308-6296 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be direct to the Group receptionist whose telephone is (703) 305-4700.

COO

2/20/01

WENDY R. GARBER
SUPERVISORY PATENT EXAMINER
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